Prognostična služba za varstvo gozdov
The prognostic service for forests in Slovenia

[1]Nikica Ogric, [1]Maarten De Groot

[1]dr. N. O., dr. M. D. G, Gozdarski inštitut Slovenije, Večna pot 2, 1000 Ljubljana, nikica.ogris@gozdis.si, maarten.degroot@gozdis.si

Gozdarski inštitut Slovenije usmerja in strokovno vodi poročevalsko, prognostično-diagnostično službo za gozdove (PPD), kar je določeno z Zakonom o gozdovih. Naloge PPD so določene s Pravilnikom o varstvu gozdov. V okviru PPD razvijamo modele za napovedovanje različnih škodljivih dejavnikov gozdov. Za večino modelov smo razvili spletne aplikacije, tj. orodja, ki se uporabljajo pri upravljanju škodljivih dejavnikov. Napovedi objavljamo na spletnem portalu Varstvo gozdov Slovenije (https://www.zdravgozd.si/) v okviru spletne, prosto dostopne revije Napovedi o zdravju gozdov. Napovedi delimo na dnevne, kratkoročne in dolgoročne. V okviru dnevnih napovedi so na voljo spletne aplikacije, v kateri pregledujemo eno ali večdnevne napovedi za različne škodljive dejavnike in škodljive organizme: spletni aplikaciji za prostorski prikaz in izračun razvoja osmerozobega smrekovega lubadarja (*Ips typographus*) na osnovi modela RITY-2, spletni aplikaciji za prostorski prikaz in izračun razvoja šesterozobega smrekovega lubadarja (*Pityogenes chalcographus*) na osnovi modela CHAPY-1, pripomoček za določitev roka za izvedbo ukrepov za zatiranje smrekovih podlubnikov na osnovi modelov RITY-2 in CHAPY-1, spletna aplikacija za pregled aktualnega stanja in analizo ulova v stalnih kontrolno-lovnih pasteh ter samodejno ugotavljanje lokacij, kjer je prišlo do prenamnožitve *Ips typographus*, dnevna napoved požarne ogroženosti gozdov z modelom FWI-INCA in FWI-ALADIN, kratkoročna napoved debeline žleda in pojava žledoloma v Sloveniji. V okviru kratkoročnih napovedi vsako leto izdelamo verjetnostno napoved sanitarnega poseka smreke zaradi podlubnikov v Sloveniji. Izdelali smo več dolgoročnih napovedi, npr. razvili smo model zdravja gozdov, na podlagi katerega smo izračunali trend skupne sanitarne sečnje za tri scenarije podnebnih sprememb, simulirali smo naravno širjenje borove ogorčice v Sloveniji 2000–2100 idr.

The Slovenian Forestry Institute directs and professionally manages the reporting, prognostic-diagnostic service for forests (PPD), which is stipulated by the Forest Act. The duties of PPD are determined by the Forest Protection Regulations. Within the framework of PPD, we develop models for predicting various harmful factors of forests. We have developed web applications for most models, i.e. tools used in the management of harmful factors. Forecasts are published on the website Varstvo gozdov Slovenije (https://www.zdravgozd.si/) as part of the online, freely accessible magazine Forecasts on the health of forests. Forecasts are divided into daily, short-term and long-term. As part of the daily forecasts, online applications are available in which we review one or multi day forecasts for various harmful factors and harmful organisms: an online application for the spatial display and calculation of the development of the European spruce bark beetle (Ips typographus) based on the RITY-2 model, an online application for spatial display and calculation of the development of the six-toothed spruce bark beetle (Pityogenes chalcographus) based on the CHAPY-1 model, a tool for determining the deadline for the implementation of measures for the suppression of spruce bark beetles based on the RITY-2 and CHAPY-1 models, an online application for reviewing the current situation and analyzing catches in permanent traps and automatic identification of locations where the outbreak of Ips typographus has occurred, daily forecast of forest fire risk with the FWI-INCA and FWI-ALADIN models, short-term forecast of ice thickness and the occurrence of ice breaks in Slovenia. As part of short-term forecasts, every year we make a probabilistic forecast of the sanitary felling of spruce due to bark beetles in Slovenia. We have made several long-term forecasts, e.g. we developed a forest health model, on the basis of which we calculated the trend of total sanitary felling for three climate change scenarios, we simulated the natural spread of pine nematode in Slovenia 2000-2100, etc.